

In the claims:

Please amend the claims as follows:

01 1. (Original) An apparatus for driving a CCD image sensor which performs charge transfer operation in accordance with a pulse signal, comprising:
a drive circuit for supplying a pulse signal to the CCD image sensor; and
a power supply circuit, connected to the drive circuit, for supplying the drive circuit with a voltage for generating the pulse signal, wherein the power supply circuit includes an over-boosting circuit for temporarily over-boosting the voltage supplied to the drive circuit to generate an over-boosted voltage, prior to the charge transfer operation of the CCD image sensor.

2. (Original) The apparatus according to claim 1, wherein the power supply circuit includes a constant voltage control circuit that performs constant voltage control on the voltage supplied to the drive circuit, and wherein the constant voltage control circuit is inactivated when the over-boosting circuit is executing an over-boosting operation.

3. (Original) The apparatus according to claim 2, wherein the over-boosting circuit is a charge pump type boosting circuit that performs a boosting operation in accordance with a clock signal, and the constant voltage control circuit thins the clock signal in the constant voltage control and supplies a thinned clock signal to the charge pump type boosting circuit, and wherein constant voltage control circuit supplies the clock signal without thinning the clock signal to the charge pump type boosting circuit when the charge pump type boosting circuit performs the over-boosting operation.

4. (Original) The apparatus according to claim 1, wherein the CCD image sensor is a frame transfer type CCD image sensor including an image sensing section for generating charges by performing photoelectric conversion and a storage section, located separate from the image sensing section, for temporarily storing charges transferred from the image sensing

section; and wherein the drive circuit includes a vertical driver for generating a pulse signal for charge transfer from the image sensing section to the storage section.

5. (Original) The apparatus according to claim 1, wherein the drive circuit and the power supply circuit are formed on a single semiconductor integrated circuit substrate.

6. (Original) The apparatus according to claim 5, wherein the CCD image sensor generates an image sensor output signal in accordance with charges every predetermined period, and the power supply circuit is enabled when the CCD image sensor is stopping generation of the image sensor output signal.

7. (Original) An apparatus for driving a CCD image sensor which performs charge transfer operation in accordance with a pulse signal, comprising:
a drive circuit for supplying a pulse signal to the CCD image sensor, and
a power supply circuit, connected to the drive circuit, for supplying the drive circuit with a voltage for generating the pulse signal; and wherein the drive circuit and the power supply circuit are formed on a single semiconductor integrated circuit substrate.

8. (Original) The apparatus according to claim 7, wherein the CCD image sensor generates an image sensor output signal every predetermined period in accordance with charges, and the power supply circuit is enabled when the image sensor stops generating image sensor output signals.

9. (Original) The apparatus according to claim 7, wherein the CCD image sensor is a frame transfer type CCD image sensor including an image sensing section for generating charges by performing photoelectric conversion and a storage section, located separate from the image sensing section, for temporarily storing charges transferred from the image sensing section, and wherein the drive circuit includes a vertical driver for generating a pulse signal for charge transfer from the image sensing section to the storage section.

Cont. Cl.
10. (Original) The apparatus according to claim 7, wherein the power supply circuit includes a charge pump type boosting circuit for performing a boosting operation in accordance with a clock signal.

11. (Original) The apparatus according to claim 10, wherein the power supply circuit includes a constant voltage control circuit for thinning a clock signal and supplying a thinned clock signal to the charge pump type boosting circuit to perform constant voltage control on the voltage supplied to the drive circuit, the constant voltage control circuit supplies the clock signal without thinning to the charge pump type boosting circuit prior to the charge transfer operation of the CCD image sensor, and wherein the charge pump type boosting circuit temporarily over-boosts the voltage supplied to the drive circuit from the power supply circuit in accordance with the clock signal to produce an over-boosted voltage.

Claims 12-19 are withdrawn.
